

WHAT IS CLAIMED IS:

- 1 1. An integrated database system, comprising:
2 a plurality of database systems connected to one
3 another by a network, each of said plurality of database
4 systems managing its own stored data independently of the
5 other database systems and accessing the stored data in
6 accordance with an access request; and
7 an integrated database unit connected to the network,
8 wherein:
9 said integrated database unit includes:
10 a directory database which stores, as to each of the
11 data stored in said plurality of database systems, a
12 correspondence with directory information and a database
13 system in which the data concerned is stored;
14 a directory control unit which acquires, by using
15 said directory database, directory information
16 corresponding to target data of the accepted access
17 request;
18 a database identifying unit which identifies, by
19 using said directory database, the database system
20 corresponding to target data of the accepted access
21 request; and
22 a database control unit which issues, on the basis of
23 the acquired directory information, an access request to
24 the database system having the target data of the accepted

25 access request, wherein:

26 the database system includes a database server unit
27 which accesses a database in accordance with the access
28 request issued by said integrated database unit.

1 2. An integrated database system according to claim
2 1, wherein:

3 said directory database stores correspondences
4 between each of the data stored in said plurality of
5 database systems and the database system in which each of
6 the data is stored, a local data name of each of the data,
7 and a global data name which is an unique identifier in all
8 of said plurality of database systems;

9 said directory control unit receives an access
10 request which specifies a global data name of target data
11 of the access request, and identifies a database system and
12 a local data name corresponding to the received global data
13 name; and

14 said database control unit issues the identified
15 database system with an access request which specifies the
16 identified local data name, and accesses the target data of
17 the access request.

1 3. An integrated database system according to claim
2 2, wherein:

3 said database server unit of each of said plurality

4 of database systems manages the data by using local data
5 names which are unique identifiers in the database system
6 in which said database server unit is included, and
7 receives from said integrated database unit a request to
8 access the data managed by the database server unit, in
9 accordance with a specified local data name.

1 4. An integrated database system according to claim
2 1, wherein said integrated database unit serves as at least
3 one of said plurality of database systems.

1 5. An integrated database unit which integrates a
2 plurality of database systems connected to one another by a
3 network, each of said plurality of database systems
4 managing its own stored data independently of the other
5 database systems and accessing the stored data in
6 accordance with an access request, said integrated database
7 unit being connected to the network, comprising:
8 a directory database which stores, as to each of the
9 data stored in said plurality of database systems, a
10 correspondence with directory information of the data and a
11 database system in which the data concerned is stored;
12 a directory control unit which acquires, by using
13 said directory database, directory information
14 corresponding to target data of the accepted access
15 request;

16 a database identifying unit which identifies, by
17 using said directory data base, the database system
18 corresponding to target data of the accepted access
19 request; and

20 a database control unit which issues, on the basis of
21 the acquired directory information, an access request to
22 the database system having the target data of the accepted
23 access request.

1 6. An integrated database unit according to claim 5,
2 wherein:

3 said directory database stores correspondences
4 between each of the data stored in the plural database
5 systems and the database system in which each of the data
6 is stored, a local data name of each of the data, and a
7 global data name which is an unique identifier in all of
8 said plurality of database systems;

9 said directory control unit receives an access
10 request which specifies a global data name of target data
11 of the access request, and identifies a database system and
12 a local data name corresponding to the received global data
13 name; and

14 said database control unit issues the identified
15 database system with an access request which specifies the
16 identified local data name, and accesses the target data of
17 the access request.

1 7. A database access method for an integrated
2 database system which includes a plurality of database
3 systems connected to one another by a network, each of said
4 plurality of database systems managing its own stored data
5 independently of the other database systems and accessing
6 the stored data in accordance with an access request, said
7 database access method which accesses the data stored in
8 said plurality of database systems, comprising the steps
9 of:

10 in an integrated database unit which is connected to
11 the network and includes a directory database which stores,
12 as to each of the data stored in said plurality of database
13 systems, a correspondence with directory information of the
14 data and a database system in which the data concerned is
15 stored,

16 acquiring, by using the directory database, directory
17 information corresponding to target data of an accepted
18 access request;

19 identifying, by using the directory database, the
20 database system corresponding to target data of an accepted
21 access request;

22 issuing, on the basis of the acquired directory
23 information, an access request to the database system
24 having the target data of the accepted access request; and

25 accessing a database in the database system in
26 accordance with the access request issued by said

27 integrated database unit.

1 8. A database access method according to claim 7,
2 further comprising the steps of:

3 in said integrated database unit in which said
4 directory database stores correspondences between each of
5 the data stored in the plural database systems and the
6 database system in which each of the data is stored, a
7 local data name of each of the data, and a global data name
8 which is an unique identifier in all of said plurality of
9 database systems,

10 receiving an access request which specifies a global
11 data name of target data of the access request;

12 identifying a database system and a local data name
13 corresponding to the received global data name; and

14 issuing the identified database system with an access
15 request which specifies the identified local data name, and
16 accessing the target data of the access request.

1 9. A database access method according to claim 8,
2 wherein each of the database systems receives from said
3 integrated database unit a request to access data managed
4 by a database server unit, in accordance with a specified
5 one of local data names which are managed by and are unique
6 identifiers in the database system in which said database
7 server unit is included.

1 10. A program product which causes a computer to
2 execute access to data stored in a plurality of database
3 systems, the computer constituting: the plurality of
4 database systems connected to one another through a
5 network, each of the plurality of database systems managing
6 its own stored data independently of the other database
7 systems and accessing the stored data in accordance with an
8 access request; and an integrated database unit connected
9 to the network, wherein:

10 said program product comprising:

11 a code which causes an integrated database unit
12 connected to the network and including a directory database
13 to acquire, by using said directory database, directory
14 information corresponding to target data of an accepted
15 access request, said directory database storing, as to each
16 of the data stored in said plurality of database systems, a
17 correspondence with the directory information of the data
18 and a database system in which the data concerned is
19 stored;

20 a code which causes said integrated database unit to
21 identify, by using said directory database, a database
22 system corresponding to target data of an accepted access
23 request;

24 a code which causes said integrated database unit to
25 issue, on the basis of the acquired directory information,
26 an access request to said database system having the target

27 data of the accepted access request; and
28 a code which causes said database system to access a
29 database in accordance with the access request issued by
30 said integrated database unit.

1 11. A program product according to claim 10, further
2 comprising:

3 a code which causes said integrated database unit to
4 store, in said directory database, correspondences between
5 each of the data stored in said plurality of database
6 systems and the database system in which each of the data
7 is stored, a local data name of each of the data, and a
8 global data name which is an unique identifier in all of
9 said plurality of database systems,

10 a code which causes said integrated database unit to
11 receive an access request which specifies a global data
12 name of target data of the access request;

13 a code which causes said integrated database unit to
14 identify a database system and a local data name
15 corresponding to the received global data name; and

16 a code which causes said integrated database unit to
17 issue the identified database system with an access request
18 which specifies the identified local data name, and
19 accessing the target data of the access request.

1 12. A program product according to claim 11, further

2 comprising:

3 a code which causes each of said plurality of
4 database systems to receive from said integrated database
5 unit a request to access data managed by a database server
6 unit, in accordance with a specified one of local data
7 names which are managed by and are unique identifiers in
8 the database system in which the database server unit is
9 included.

1 13. A program product according to claim 10, wherein
2 the computer which constitutes said database systems and
3 said integrated database unit has a readable storage medium
4 in which said codes are held.

1 14. A program product according to claim 10, wherein
2 said codes are stored through the network into the computer
3 which constitutes said database systems and said integrated
4 database unit.

1 15. A storage medium which stores a program which
2 causes a computer to execute access to data stored in a
3 plurality of database systems, said computer constituting:
4 said plurality of database systems connected to one another
5 through a network, each of said plurality of database
6 systems managing its own stored data independently of the
7 other database systems and accessing the stored data in

8 accordance with an access request; and an integrated
9 database unit connected to the network, wherein:
10 said program comprising:
11 a code which causes an integrated database unit
12 connected to the network and including a directory database
13 to acquire, by using the directory database, directory
14 information corresponding to target data of an accepted
15 access request, said directory database storing, as to each
16 of the data stored in said plurality of database systems, a
17 correspondence with the directory information of the data
18 and a database system in which the data concerned is
19 stored;
20 a code which causes said integrated database unit to
21 identify, by using said directory database, a database
22 system corresponding to target data of an accepted access
23 request;
24 a code which causes said integrated database unit to
25 issue, on the basis of the acquired directory information,
26 an access request to the database system having the target
27 data of the accepted access request; and
28 a code which causes the database system to access a
29 database in accordance with the access request issued by
30 said integrated database unit.